

Message Text

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PAGE 01 OTTAWA 00233 01 OF 02 211629Z

ACTION OES-06

INFO OCT-01 EUR-12 EA-07 IO-13 ISO-00 ABF-01 ACDA-07

CIAE-00 INR-07 L-03 NSAE-00 NSC-05 EB-08 FEAE-00

DODE-00 ERDA-05 COME-00 PM-04 SS-15 SP-02 /096 W

-----211735Z 129521 /43

P R 211411Z JAN 77

FM AMEMBASSY OTTAWA

TO SECSTATE WASHDC PRIORITY 2197

INFO AMEMBASSY BONN

AMEMBASSY PARIS

AMEMBASSY LONDON

AMEMBASSY TOKYO

USMISSION IAEA VIENNA

USMISSION EC BRUSSELS

LIMITED OFFICIAL USE SECTION 1 OF 2 OTTAWA 233

SECSTATE FOR OES/NET/IM

E.O. 11652: N/A

TAGS: TECH, ENRG, GW, IAEA, CA, FR, UK, JA

SUBJ: GAO REVIEW OF PEACEFUL NUCLEAR EXPORT POLICIES OF MAJOR
SUPPLIER NATIONS

REF: STATE 310540

A. REACTION OF P.E. LABERGE, DIRECTOR OF ECT DIVISION, GOC
EXTAFF, TO GAO QUESTIONNAIRE WAS "TOO SHORT A TIME PERIOD TO RESPOND
COMPLETELY." FOLLOWING INFORMATION REPRESENTS A COMPOSITE OF
SOME DATA FROM EXTAFF AND REST FROM AVAILABLE EMBASSY SOURCES.
FORMAT FOLLOWS REFERENCED TELEGRAM.

BACKGROUND ON NUCLEAR ACTIVITIES

1. CANADA ONE OF FIRST COUNTRIES IN ATOMIC ENERGY RESEARCH

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PAGE 02 OTTAWA 00233 01 OF 02 211629Z

AND DEVELOPMENT. IN SEPTEMBER 1945 A SMALL REACTOR, CALLED
ZEEP, PRODUCED POWER AT CHALK RIVER, FIRST REACTOR TO DO SO
OUTSIDE THE UNITED STATES. FOLLOWED BY THE EXPERIMENTAL AND
TEST REACTORS NRX AND NRU AND BY A POWER DEMONSTRATION PLANT, NPD
(20 NWE) WHICH STARTED OPERATION
IN 1962. THE FIRST COMMERCIAL CANDU POWER PLANT (DOUGLAS
POINT) CAME INTO OPERATION IN 1967. UNDER NOW 38 MORE CANDU

REACTORS IN OPERATION, UNDER CONSTRUCTION, COMMITTED OR PLANNED. CANADA HAS FOCUSSED ON HEAVY WATER COOLED AND MODERATED, NATURAL URANIUM FUELED, REACTORS USING PRESSURIZED TUBES.

CANADA ALSO A MAJOR SUPPLIER OF URANIUM AND OF RADIOISOTOPES FOR MEDICAL AND INDUSTRIAL APPLICATIONS. IT HAS THREE PLANTS, BRUCE, PORT HAWKSBURY, AND GLACE BAY FOR MANUFACTURE OF HEAVY WATER. TWO MAJOR R&D CENTERS AT CHALK RIVER, ONTARIO AND PINAWA, MANITOBA. MAIN AREAS OF R&D ARE NUCLEAR PHYSICS, SOLID STATE PHYSICS, CHEMISTRY, MATERIALS SCIENCE, BIOLOGY, AND WASTE MANAGEMENT.

GOVERNMENT DEPARTMENTS ARE 1) ATOMIC ENERGY OF CANADA, LTD. (AECL)-A CROWN COMPANY INCORPORATED FEBRUARY 1952, UNDER CANADIAN CORPORATIONS ACT PURSUANT TO ATOMIC ENERGY CONTROL ACT, REPORTING TO MINISTER OF ENERGY, MINES, AND RESOURCES. AECL RESPONSIBLE FOR RESEARCH AND DEVELOPMENT IN ATOMIC ENERGY, DEVELOPMENT OF NUCLEAR POWER SYSTEMS FOR CANADA, AND APPLICATIONS OF RADIOISOTOPES AND RADIATION. 2) ATOMIC ENERGY CONTROL BOARD (AECB)-CONSTITUTED BY ATOMIC ENERGY CONTROL ACT IN 1946. ACT AMENDED IN 1954. PRESENT FUNCTIONS: "CONTROL OF PRE-SCRIBED ATOMIC ENERGY MATERIALS AND DEVICES, AND CONTROL OF NUCLEAR FACILITIES, IN THE INTEREST OF HEALTH AND SAFETY; THE CONTROL OF ATOMIC ENERGY MATERIALS, EQUIPMENT AND INFORMATION IN THE INTEREST OF NATIONAL AND INTERNATIONAL SECURITY; AND THE AWARDS OF GRANTS IN AID OF ATOMIC ENERGY RESEARCH." ACT IS CURRENTLY BEING REWRITTEN TO EMPHASIZE PROTECTION OF ENVIRONMENT. BOARD RESPONSIBLE FOR LICENSING AND REGULATION SIMILAR TO NRC IN UNITED STATES. BOARD CONSISTS LIMITED OFFICIAL USE

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PAGE 03 OTTAWA 00233 01 OF 02 211629Z

OF FIVE MEMBERS AND RESPONSIBLE TO PARLIAMENT THROUGH MINISTER OF ENERGY, MINES, AND RESOURCES. 3) DEPARTMENT OF EXTERNAL AFFAIRS-BUREAU OF TECHNOLOGICAL AND ECONOMIC AFFAIRS (ECP), UNDER A DIRECTOR GENERAL. BUREAU RESPONSIBLE FOR DEVELOPING AND COORDINATING INTERNATIONAL NUCLEAR ENERGY POLICY, INCLUDING CONTROLS AND SAFEGUARDS, AND BILATERAL AND MULTILATERAL AGREEMENTS FOR COOPERATION IN NUCLEAR ENERGY. THE DEPARTMENT OF EXTERNAL AFFAIRS IS HEADED BY SECRETARY OF STATE FOR EXTERNAL AFFAIRS. 4) DEPARTMENT OF INDUSTRY TRADE AND COMMERCE (ITC) REPORTS TO THE MINISTER OF ITC. HAS RESPONSIBILITY FOR ISSUING EXPORT JRMITS FOR ITEMS ON THE GOC "EXPORT/IMPORT CONTROL LIST." PERMITS FOR EXPORT OF NUCLEAR ITEMS ISSUED ONLY ON ADVICE OF THE AECB. AECB CONCURS ONLY IF SAFEGUARDS ARE ACCEPTABLE. SUMMARIZING, IN A CASE OF EXPORT OF A CANDU POWER PLANT, EXTAFF RESPONSIBLE FOR ESTABLISHING AGREEMENT FOR COOPERATION WITH APPROPRIATE CONTROLS AND SAFEGUARDS, AECL PROVIDES DESIGN AND ENGINEERING ASSISTANCE, INDUSTRY BUILDS HARDWARE, EXPORT PERMIT FOR CONTROLLED ITEMS ISSUED BY ITC WITH CONCURRENCE OF AECB.

2. ANNUAL STATISTICS ON CANADA'S NUCLEAR EXPORT ACTIVITY-
CANADA EXPORTS URANIUM, CANDU AND RESEARCH REACTORS, RADIO-
ISOTOPES AND RADIATION EQUIPMENT AND HEAVY WATER FOR REACTORS
IT SUPPLIES. THE RADIOISOTOPES AND RADIATION EQUIPMENT SOLD
WORLD-WIDE AND LEVEL OF SALES IS ABOUT \$10 MILLION/YEAR.
CURRENT URANIUM SALES ARE ABOUT 5000 TO 7000 TONNES U308/YEAR.
CANDU REACTORS SOLD TO PAKISTAN, INDIA (2), ARGENTINA, AND SOUTH
KOREA. RESEARCH REACTORS (NRX TYPE) TO TAIWAN AND INDIA.
FIGURES NOT READILY AVAILABLE ON CANDU SALES BUT CURRENT
BACKLOG PROVIDES AN ANNUAL LEVEL OF ABOUT \$200 MILLIONS PERIOD
1976-1981.

3. INDUSTRIAL NUCLEAR CAPACITY--

CANADA NOT IN FUEL ENRICHMENT OR REPROCESSING BUSINESS
EXCEPT AT RESEARCH LEVEL.
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PAGE 04 OTTAWA 00233 01 OF 02 211629Z

NUMBER OF NUCLEAR POWER REACTORS, OF 600 MWE SIZE, NEEDED
TO PROVIDE VIABLE INDUSTRY ESTIMATED AT TWO TO FOUR, PER YEAR,
INCLUDING DOMESTIC AND FOREIGN.

CURRENT AND PROJECTED DOMESTIC DEMAND FOR REACTORS

FINANCIAL CONSTRAINTS BY UTILITIES HAVE STRETCHED
SCHEDULES, BUT BY END OF 1976 CANADA SHOULD HAVE INSTALLED NET
CAPACITY OF ABOUT 3.3 GWE. PROJECTED DOMESTIC DEMANDS ARE 5.6
GWE IN 1980, 11.3 GWE IN 1985, 24.5 GWE IN 1990, AND 47.1 GWE
IN 1995.

STATUTORY REQUIREMENTS AND AGREEMENTS FOR COOPERATION
1. LAWS AND REGULATIONS AND REGULATIONS OF GOC GOVERNING ATOMIC
ENERGY ACTIVITIES

A. LEGISLATION- ATOMIC ENERGY CONTROL ACT, R.S. 1970, C.A.-19;

NUCLEAR LIABILITY ACT. R.S. 1970, CH. 29,
1ST SUPPL. (NOT YET PROCLAIMED)BT

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PAGE 01 OTTAWA 00233 02 OF 02 211614Z

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LIMITED OFFICIAL USE SECTION 2 OF 2 OTTAWA 233

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B. REGULATIONS- ATOMIC ENERGY CONTROL

REGULATIONS, SOR"DORS/74-334, 4 JUNE 1974,

AND INCLUDING ORDERS CONTAINED IN CANADIAN

GAZETTE, PART I, DATED 8 JUNE 1974.

2. LIST OF NUCLEAR AGREEMENTS BETWEEN GOC AND RECIPIENTS.

GOC HAS AGREEMENTS FOR COOPERATION WITH: ARGENTINA, AUSTRALIA,

EURATOM, FINLAND, GERMANY (FRG), IAEA, INDIA, IRAN,

JAPAN, KOREA, PAKISTAN, SPAIN, SWEDEN, SWITZERLAND, AND U.S.A.

3. REQUIREMENTS FOR TECHNICAL OR ECONOMIC JUSTIFICATION--

GOC EXAMINES ALTERNATE ENERGY SOURCES, TOTAL ENERGY DEMAND,

AVAILABILITY OF CAPITAL, TECHNICAL AND INDUSTRIAL INFRASTRUCTURE

OF RECIPIENT, BEFORE CONSIDERING NUCLEAR EXPORT.

REQUIREMENT FOR PEACEFUL USES AGREEMENT

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PAGE 02 OTTAWA 00233 02 OF 02 211614Z

CANADA DOES NOT PROVIDE NUCLEAR MATERIALS, EQUIPMENT, OR

TECHNOLOGY IN ABSENCE OF PEACEFUL USES AGREEMENT. POLICY OF

GOC ON NUCLEAR SAFEGUARDS IS GIVEN IN MARCH 1976 PAPER, AND

IN DECEMBER 22, 1976, STATEMENT BY SECRETARY OF STATE FOR EX-

TERNAL AFFAIRS JAMIESON, BOTH PREVIOUSLY SENT TO DEPARTMENT.

SUMMARY: UNDER ANY NEW CONTRACT, RECIPIENT OF NUCLEAR MATER-

IALS, EQUIPMENT, OR TECHNOLOGY MUST BE NPT SIGNATORY OR ACCEPT

FULL SCOPE SAFEGUARDS INCLUDING BINDING ASSURANCE NOT

TO PRODUCE NUCLEAR EXPLOSIVE DEVICE. REPROCESSING, TRANSFERS,

RE-TRANSFERS, WITH SANCTIONS FOR NON-COMPLIANCE ALSO COVERED.

REGULATORY AND LICENSING FUNCTIONS

1. ALL APPLICATIONS FOR EXPORT NUCLEAR MATERIALS, EQUIPMENT AND TECHNOLOGY APPROVED BY AECB BEFORE PERMIT BY IT&C.

2. GIVEN IN EXPORT CONTROL LIST, GROUP 8 (ATOMIC ENERGY MATERIALS AND EQUIPMENT) AND GROUP 10 (TECHNOLOGY). SORS/DORS/73-253. THE DE MINIMUS QUANTITIES IN SUPPLIERS' GUIDELINES USED IN PRACTICE.

3. GOC CONTROLS ALL, UNDER 1 ABOVE.

4. CONTROLLED UNDER EXPORT CONTROL LIST IN 2 ABOVE.

5. NONE.

SAFEGUARDS

1. LIMITED INSPECTION BY GOC ON CANADIAN ORIGIN MATERIAL IN SUCH COUNTRIES AS FRG, FRANCE, SWITZERLAND, ITALY, AND U.K.

2. FALLBACK SAFEGUARDS PROVIDED IN GOC BILATERAL AGREEMENTS SINCE 1974 AND SOME EARLIER.

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PAGE 03 OTTAWA 00233 02 OF 02 211614Z

3. SOME BILATERALS SINCE 1974 GIVE GOC THE IAEA ACCOUNTABILITY INFORMATION. CONSULTATIONS IN AGREEMENTS ALSO GIVE MECHANISM FOR OBTAINING INFORMATION.

4. SAFEGUARDS DE-COUPLED FROM AGREEMENTS. SINCE 1974 SAFEGUARDS COVER LIFE OF CANADIAN SUPPLIED FACILITIES, EQUIPMENT, NUCLEAR MATERIALS, AND SUBSEQUENT GENERATIONS OF FISSILE MATERIAL.

5. GOC SUPPORTS AND PARTICIPATES IN IAEA SAFEGUARDS.

6. SEE 22 DECEMBER 1976 STATEMENT OF SECRETARY STATE, EXTERNAL AFFAIRS. VETO OVER REPROCESSING, ENRICHMENT, AND TRANSFER.

PHYSICAL SECURITY

1. RECIPIENTS REQUIRED TO PROVIDE ADEQUATE PHYSICAL SAFEGUARDS. STANDARD COMPATIBLE WITH SUPPLIERS' GUIDELINES.

2. GOC CONDUCTS REVIEWS IF NEW CUSTOMER.

3. PERIODIC CONSULTATION PROVIDED IN GOC AGREEMENTS.

4. IF INADEQUATE, NO SUPPLY.

RETRANSFERS

1. ALL BILATERALS SINCE 1974 AND SOME BEFORE PROHIBIT RE-TRANSFER OF GOC SUPPLIED MATERIAL.

2. AECB APPROVES ORIGINAL EXPORT. RE-TRANSFER APPROVED BY AECB AND EXTAFF.

3. GOC AGREEMENTS PROVIDE FOR BILATERAL VERIFICATION OF CONTROLS ON RETRANSFERS, REPROCESSING, AND ENRICHMENT.

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PAGE 04 OTTAWA 00233 02 OF 02 211614Z

NUCLEAR EXPORT FINANCING

1. EACH NEW REACTOR SALE MUST BE APPROVED BY FULL CABINET. CONSIDERS TECHNICAL ASSESSMENT, POLITICAL ASSESSMENT, ALTERNATE POWER SOURCES, ECONOMICS, NEED, AND SAFEGUARDS.

2. WITHOUT ADEQUATE SAFEGUARDS, NO EXPORT. NO TIE TO FINANCING.

3. FIRST CHOICE PRIVATE OR RECIPIENT GOVERNMENT FINANCING. OTHERWISE FINANCED THROUGH CANADIAN EXPORT DEVELOPMENT CORPORATION(EDC). LATTER HAS CLOSE COORDINATION WITH U.S. EXIM BANK ON TERMS AND CONDITIONS. DETAILS NOT AVAILABLE.

4. NONE. SEE 2 ABOVE.

5. SEE 1 ABOVE.

6. SEE 1 ABOVE.

NUCLEAR SUPPLIERS' MEETINGS

1. SEE 1974 AND 22 DECEMBER 1976 POLICY STATEMENT. GOC'S POLICIES LEAD SUPPLIERS' GROUP.

2. SEE 1 ABOVE. GOC BELIEVES IT LEADS, RATHER THAN FOLLOWS SUPPLIERS' GROUP.

3. GOC HOPES SUPPLIERS AND IAEA WILL FOLLOW ITS LEAD.

GENERAL

ASSUME DOCUMENTS ON 1974 AND 1976 GOC SAFEGUARDS POLICY ON FILE AT DEPT. OF STATE. ALSO NUCLEAR LAWS AND REGULATIONS.

COPIES OF THESE AND EXAMPLE OF RECENT GOC BILATERAL AGREEMENT
(FINLAND) WILL BE POUCHED TODAY.
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PAGE 05 OTTAWA 00233 02 OF 02 211614Z

GOC BELIEVES ITS 22 DECEMBER 1976 SAFEGUARDS POLICY IS
STRONGEST, HOPES OTHERS WILL ADOPT.
ENDERS

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Message Attributes

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Copy: SINGLE
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Decaption Note:
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Disposition Approved on Date:
Disposition Case Number: n/a
Disposition Comment: 25 YEAR REVIEW
Disposition Date: 22 May 2009
Disposition Event:
Disposition History: n/a
Disposition Reason:
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Executive Order: N/A
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To: STATE
Type: TE
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